



## Instructions for Collecting Information with Global Positioning Systems for the California Natural Diversity Database

Data collected with Global Positioning Systems (GPS) are welcomed, but, cannot be used in our Geographic Information System (GIS) unless the **datum** and **coordinate system** are reported on the Field Survey form.

### CNDDDB Preferred Settings

- Coordinate System: UTM (Universal Transverse Mercator) Projection; or if Geographic, Decimal Degrees
- Datum: NAD83 (North American Datum 1983)

### Definitions

Datum - defines the origin and orientation of the latitude and longitude lines. Common examples for North America are: NAD27, NAD83 and WGS84

Coordinate system - measurements that describe a position on the surface of the earth. Some examples are:

*Universal Transverse Mercator (UTM) Zone, Easting and Northing*

Written Format: UTM Zone 10; 644886E, 4301511N

and *Geographic* - also referred to as Latitude and Longitude

Decimal Degrees (DDD.DDDDD°)

Written Format: Latitude: 32.30642; Longitude: -122.61458

### Recording GPS Information on the [CNDDDB California Native Species Field Survey Form](#)

Horizontal Accuracy: This will be displayed on your GPS unit and is dependant on the number of satellite signals your unit is detecting.

- Example: 15 meters

### GPS Make and Model

- Example: Garmin 12XL

### Things to remember

- Record the datum and coordinates on the Field Observation Form.
- Try to obtain a GPS reading from satellites with as evenly distributed placement as possible (see your user manual).
- Acquire 3-Dimensional GPS location, if possible (4+ satellites).
- Receiving four signals in a canyon or under tree canopy may be difficult.
- Record location even if you are unable to acquire four (4) satellites.

### References

Indiana Geographic Information Council, Standards and Recommendations. 2001. Projections, Datum, Coordinate Systems, and Units of Measure Standard. <http://www.in.gov/ingisi/metadata/index.html>

Kelly, Maggi. 2002. California Oak Mortality Task Force Sudden Oak Death Monitoring Committee.

[http://www.cnr.berkeley.edu/comtf/html/monitoring\\_committee.html](http://www.cnr.berkeley.edu/comtf/html/monitoring_committee.html)

California Native Plant Society Vegetation Committee 2002. California Native Plant Society Relevé Protocol.

<http://www.cnps.org/archives/forms/releve.pdf>

Carnes, John. 2002. Map Tools. <http://www.maptools.com/>